

P45/09

Serial Number: 09/622,745

CRF Processing Date:

6/12/2001

Edited by:

Verified by:

(STIC staff)

ENTERED

- Changed a file from non-ASCII to ASCII
- Changed the margins in cases where the sequence text was "wrapped" down to the next line. *KW*
- Edited a format error in the Current Application Data section, specifically:
-
- Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other _____
- Added the mandatory heading and subheadings for "Current Application Data".
- Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- Changed the spelling of a mandatory field (the headings or subheadings), specifically:
-
- Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:
-
- Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:
-
- Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- Inserted colons after headings/subheadings. Headings edited included:
-
- Deleted extra, invalid, headings used by an applicant, specifically:
-
- Deleted: non-ASCII "garbage" at the beginning/end of files; secretary initials/filename at end of file; page numbers throughout text; other invalid text, such as _____
- Inserted mandatory headings, specifically:
-
- Corrected an obvious error in the response, specifically:
-
- Edited identifiers where upper case is used but lower case is required, or vice versa.
-
- Corrected an error in the Number of Sequences field, specifically:
-
- A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
-
- Deleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- Other:
-
-
-

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

PCT

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/622,745

DATE: 06/12/2001
 TIME: 11:50:04

Input Set : A:\es.txt
 Output Set: N:\CRF3\06122001\I622745.raw

6 <110> APPLICANT: AstraZeneca AB
 8 <120> TITLE OF INVENTION: New methods
 10 <130> FILE REFERENCE: H 2174-1 WO
 C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/622,745
 C--> 13 <141> CURRENT FILING DATE: 2000-08-22
 15 <160> NUMBER OF SEQ ID NOS: 2
 17 <170> SOFTWARE: PatentIn Ver. 2.0

Does Not Comply
 Corrected Diskette Needed

ERRORED SEQUENCES

115 <210> SEQ ID NO: 2
 116 <211> LENGTH: 4594
 117 <212> TYPE: DNA
 118 <213> ORGANISM: Homo sapiens
 120 <220> FEATURE:
 121 <221> NAME/KEY: GC_signal
 122 <222> LOCATION: Complement((4080)..(4087))
 124 <220> FEATURE:
 125 <221> NAME/KEY: GC_signal
 126 <222> LOCATION: Complement((4196)..(4205))
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 129 <221> NAME/KEY: GC_signal
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 132 <220> FEATURE:
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 134 <222> LOCATION: Complement((4272)..(4279))
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 137 <221> NAME/KEY: misc_binding
 138 <222> LOCATION: (3844)..(3851)
 139 <223> OTHER INFORMATION: AP-2
 141 <220> FEATURE:
 142 <221> NAME/KEY: misc_binding
 143 <222> LOCATION: (4308)..(4315)
 144 <223> OTHER INFORMATION: CRE
 146 <220> FEATURE:
 147 <221> NAME/KEY: misc_binding
 148 <222> LOCATION: (4375)..(4381)
 149 <223> OTHER INFORMATION: Initiator
 151 <400> SEQUENCE: 2
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 153 cagacccca acgcccacctc agaagggtgca tccttcttcg acgacacctcg gccctcccttc 120
 154 gctccacttc cttttccctg catctccatca tttctggtcc tcatcactat cccatcagtc 180
 155 ccacatatca tcccggtctg gcaacccctt ctgcteggcc cgactttact actgctgacc 240
 156 tccttctgtc accccacgtt actatccagc acctcttttc tctgcccaca ttgctacact 300
 157 ataccacctt cctgtgcatt ttctccgcct caatccccctt tcccaaaaaa acattactac 360
 158 ctcaattact ccctttctt ggtcccaactt tgctgtccag atgatcttat tagcctccct 420

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 160 gctccaccca catacatac cttcatgtat ttcttaatta ctttcttc ttacctccac 540
 161 ccagcacccct tccctccccca cttgtgggtt ctctcatcag cttaaccct gccctttac 600
 162 tctctgtcct ttagccaggg gatctgtacc tgtccccact cccaccctct agtgccccat 660
 163 ccctcttcct ctgtccccag cctgcccaca gaccacgccc tactctcccc ttctccac 720
 164 tggggagcct gcctttcct ctttcccacc attcctctct gtatgcctcc ccgactcacc 780
 165 ccttaggttgc ctagatcata caccgcctt gggaaaggggg catcaggta cgccccctga 840
 166 ctcgggacca ggtgaaggct atcaacttcc tgccagtggc ctatgagatt gagatgtgt 900
 167 gccggggggg ggcgcagggt gtggggccca aggtccgcaa gtgcctgccc aacggctct 960
 168 ggacagatggacacaccc agccgcgtgt gtgagtagcc tcggaagccc ctccccctt 1020
 169 caagactatt cctttcctg cgcacaaactt agcattactg cttgcaagtc agcactttaa 1080
 170 atccagtata ccaaattca caaatacatt tattgaatga ctactacata agagcaattt 1140
 171 tgctctgtgc ggttggaggt agtagagcta gcagccctgca cagttcattt catccctcc 1200
 172 tcattaggcc actgatcatt ggcctataac attgataatt catcttgtca gttattctct 1260
 173 ttgaggatca ttagtggcag atgatgacaa aaaaattcta aaatgatttc atcacatttt 1320
 174 tgaatacctc tgccaccaac ccagagacca tatgcccaag aaacaaaagc cagtttaata 1380
 175 ttaatagaag ccaactataa taagaaaagc aaatctgatt gtgcacccaa agttatatac 1440
 176 atctacatata ttcaaaagcca gagaaccgc cactgttagt gactttgaag agatccatt 1500
 177 ttgtgtgctt atagccccat cttgggttcc taaaatggta atttttttt tctttggga 1560
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 184 ctgccagggtt gagggaaca gtcgcctgca tgcaactgt gaggacgctt gtgtgaggat 1980
 185 gggagtgggg tgggaatggta taatggaaa gaatggagat ctataaaaat gtgggggagg 2040
 186 acactggaaa ggggagatga aagtccctt ttcctccatc acctgcctca aactccctct 2100
 187 tgcaatcccc ggtatccctt gtaggttggg ggcttccttc ctttacccctt taaaaaaaaatc 2160
 188 ttccctgctcc cgattcttag acctcacgtt ttctctttc cttaatgtat ctcacccctc 2220
 189 tcacccctt caggttaaa tactccaatt ttcccttc ctaaacttag aaatttccat 2280
 190 gcatcacccctt cttctagaat tcatccctca ccattccatataattgtat ttattgtaaa 2340
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 193 actcaggat ggggtggaa gaagacaggt cttttctgk acttcctaga caacccat 2520
 194 tattccctaa gggaaatcagt gttgtgtctg tctacyttt tttttttt tttgccacgt 2580
 195 aattttacaa actccctt ttcttaggcac ccgaactctc tgccatctc tctccctggga 2640
 196 tgcaatccatc ccatttgtat gcctcataact tcctctaccc tggtagattc ttcaagatc 2700
 197 cttggcctt actttccatc cataactcag ttatctgtat tcttagttac cattttatc 2760
 198 tggaaattga gatccatc caggggtgaa cttatgacac tactgaaact tagacttcaa 2820
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 201 gcttaaagcc aattgtatgt gtaatttttt ttcttaaaga ctcccaattt tgtaatattc 3000
 202 aggccaccaca gaaccaagat ctgccccaaa cttagctatt ggcattcccg tctcaatcc 3060
 203 tggatccata tgaaaaatcg aagaagaaaa taatgtctga ccccccttacc cccagaccc 3120
 204 cttgttctt atccccaggc accctccctt cagaaacgca ggcttctgct ctccccggc 3180
 205 ttccatgg acagggtgtgg gggatccaggc cagggaaagct gggcccaagt 3240
 206 ggttaactctt ctctgatccc cgtcttcctt gctgccagtg aatcgaacgc cacactcagg 3300
 207 tgagatgaga aaccottacc ggcgcactg caatgcctc cccttcactc tgccaccctcc 3360

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/622,745

DATE: 06/12/2001

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Input Set : A:\es.txt

Output Set: N:\CRF3\06122001\I622745.raw

208 acccccctga aattctgccc ttaggctacg gggcgtcgtc ctttcgcacc ttccccaacc 3420
209 caccccatgtt tgccggccacc cccttccctc cctacacctt tcctgcctcc agtccccgtt 3480
210 ttccacgagg ctgcggcttc tccttgccc tgcttggcta cacttcctg ggctccacct 3540
211 cctcccagac tgagccctgc cggtgtcagg cagagcccaag cagargggcg caggggtctg 3600
212 ggagacccctg agctcccaacc acgttttccc ctgtgggtt ctttgcgacc ttgcgtggaa 3660
213 cctttccag cctgctgcct cctaggattt cacctaattgg actttctcag cctgtcccac 3720
214 ccatacccaac cctgccagg cctctcgcc tcttccccac atctttctt tccgtgtacc 3780
215 cttccctcg tctttctca attccatgtc ctgtctccct ttcttaggt tctgtctacc 3840
216 cagccccagg ctcccttcca cgaccccaacc actccctcaa accagccctcc ctccgttacc 3900
217 caactcgttc cctccaaaac cgtttccctt ccccacatc ctcagtgtttt cactgtatcg 3960
218 actcataactc ccacttcaga cctcaggcgc cagccccgtt tctctccctt cccactcgca 4020
219 tccttccctt cttaccctgg ttccctccgtg ctteagccctc cccggccctcc ctccgcccac 4080
220 cccgcctcc tggcacgccc cgtccccatt tctccctcccc tcgggtcccc ttaagtgaga 4140
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222 cccctccgac tgtcgctccc acctcgccgc tcgttccctt ccccgcccccc ttccctgcctc 4260
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224 cctcccaagc cccacatctc cctctcgcc tctccctcc cctccgtcgg tcagtcagtc 4380
225 cgcgaggaga gtccgcggtg gcggcgacgg tggcgagacgc cgcggggggcc gtaggaagcc 4440
226 aaccttccctt gtttctccgg gcccctcgcc ccctccctccc cacaaaatca gggatggagg 4500
227 cgcctccctt gcacccttcc agcagccctc ccggggaaaa gtgtcccccc tgagctccta 4560
228 acgctccccca acagctaccc ctgccccca cgcc 4594

E--> 233 (4)

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/622,745

DATE: 06/12/2001

TIME: 11:50:05

Input Set : A:\es.txt

Output Set: N:\CRF3\06122001\I622745.raw

L:12 M:270 C: Current Application Number differs, Replaced Application Number

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:233 M:254 E: No. of Bases conflict, LENGTH:Input:4 Counted:4594 SEQ:2

Namnlös

s.
CC Where differences are found these are annotated as variations
CC together with a note of the overlapping clone name. Note that th
e
CC variation annotation may not be found in the sequence submission

CC corresponding to the overlapping clone, as we submit sequences
CC with only a small overlap as described above.
CC This sequence is the entire insert of clone 271M21.
CC This sequence has been finished according to sequence map criter
ia as
CC follows. An attempt is made to resolve all sequencing problems,
such
CC as compressions and repeats, but not necessarily within known
CC annotated human repeat sequence elements (e.g. Alu). Where the
CC sequence is ambiguous, there is an annotation using the "unsure"
CC feature key.
CC This sequence was generated from part of bacterial clone contigs
of
CC human chromosome 6, constructed in collaboration by the Sanger C
entre

CC chromosome 6 mapping group and Armin Volz & Andreas Ziegler. Fur
ther
CC information can be found at <http://www.sanger.ac.uk/HGP/Chr6/>
CC 271M21 is from the library RPCI1 constructed at the Roswell Park

SCORES Init1: 6935 Initn: 15224 Opt: 19389 z-score: 3034.4 E():
 0
 99.7% identity in 3909 bp overlap

30 Pagapr1.Dna GCAG	10	20
		GATCATATTAAATTGAAGGTGGCGGG
 Hs271m21 GCAG		
		CCCAAGGAAGGAGTCAAGACTGAGAACACGATCATATTAAATTGAAGGTGGCGGG

	1580	1590	1600	1610	1620	1630
90		40	50	60	70	80
Pagap1.Dna	GATGGTTCTGTGGTGCAGTTAAGATTAAGAGGGCATACACCACTTAGTAAACTAAT					
GAAA						

Namnlös

Hs271m21	GATGGTTCTGGTGCAGTTAAGATTAAGAGGCATACACCACTTAGTAAACTAAT					
GAAA	1640	1650	1660	1670	1680	1690
	100	110	120	130	140	
150						
Pagapr1.Dna	GCCTATTGTGAACGACAGGGATTGTCAATGAGGCAGATCAGATTCCGATTGACGG					
GCAA						
Hs271m21	GCCTATTGTGAACGACAGGGATTGTCAATGAGGCAGATCAGATTCCGATTGACGG					
GCAA	1700	1710	1720	1730	1740	1750
	160	170	180	190	200	
210						
Pagapr1.Dna	CCAATGAAACAGACACACACCTGCACAGTTGAAATGGAGGATGAAGATAACAATTGAT					
GTGT						
Hs271m21	CCAATGAAACAGACACACACCTGCACAGTTGAAATGGAGGATGAAGATAACAATTGAT					
GTGT	1760	1770	1780	1790	1800	1810
	220	230	240	250	260	
270						
Pagapr1.Dna	TCCAACAGCAGACGGGAGGTGTACTGAAAAGGAAACCTGCTTCTTACTCCAGA					
ACTC						
Hs271m21	TCCAACAGCAGACGGGAGGTGTACTGAAAAGGAAACCTGCTTCTTACTCCAGA					
ACTC	1820	1830	1840	1850	1860	1870
	280	290	300	310	320	
330						
Pagapr1.Dna	TGTTCTTAAAGACCAAGATTACATTCTCAATTAGAAAAGTCAATTGCTTCCAC					
CACA						
Hs271m21	TGTTCTTAAAGACCAAGATTACATTCTCAATTAGAAAAGTCAATTGCTTCCAC					

Namnlös

CACA

	1880	1890	1900	1910	1920	1930
--	------	------	------	------	------	------

390

	340	350	360	370	380
--	-----	-----	-----	-----	-----

Pagapr1.Dna
TTTA

TCCTGACTACTACCGTATAGTTCTATTCTTCATTCCCCCTCCCCATTCC

Hs271m21
TTTA

||||| TCCTGACTACTACCGTATAGTTCTATTCTTCATTCCCCCTCCCCATTCC

	1940	1950	1960	1970	1980	1990
--	------	------	------	------	------	------

450

Pagapr1.Dna
CTAA

CTGTACATAAAGTAACGGTATATGTGCACAAGCATATTACTTTTTTTAAAA

Hs271m21
CTAA

||||| CTGTACATAAAGTAACGGTATATGTGCACAAGCATATTACTTTTTTTAAAA

	2000	2010	2020	2030	2040	2050
--	------	------	------	------	------	------

509

Pagapr1.Dna
ATTC

ACAGCCAATGGTATGTTTGATTGACATCAAGTGGAGACGGGG-GGGAAAATACTG

Hs271m21
ATTC

||||| ACAGCCAATGGTATGTTTGATTGACATCAAGTGGAGACGGGGCGGAAAATACTG

	2060	2070	2080	2090	2100	2110
--	------	------	------	------	------	------

569

Pagapr1.Dna
ATTC

TGTGAAAATACCCCCTTCTCCATTAGTGGCATGCTCATTCTAGCTCTATCTTAT

Hs271m21
ATTC

||||| TGTGAAAATACCCCCTTCTCCATTAGTGGCATGCTCATTCTAGCTCTATCTTAT

	2120	2130	2140	2150	2160	2170
--	------	------	------	------	------	------

Namnlös

	570	580	590	600	610	620
629						
Pagapr1.Dna	CAGTAAGTTATTTGCTCTCACTGTTAACAAACAACAAAAACAAACACAT					
AAAAA						
Hs271m21	CAGTAAGTTATTTGCTCTCACTGTTAACAAACAACAAAAACAAACACAT					
AAAAA						
	2180	2190	2200	2210	2220	2230
689	630	640	650	660	670	680
Pagapr1.Dna	ATCCTTGCATAACCTTGTCAATTGGAGAATTTAACATGTTTCATTATCATTGTA					
AAAC						
Hs271m21	ATCCTTGCATAACCTTGTCAATTGGAGAATTTAACATGTTTCATTATCATTGTA					
AAAC						
	2240	2250	2260	2270	2280	2290
749	690	700	710	720	730	740
Pagapr1.Dna	CAAGGACAATTTATAACTTTTGACTTAGCTGTTACATGCAGAGCAATCTGTC					
TTTA						
Hs271m21	CAAGGACAATTTATAACTTTTGACTTAGCTGTTACATGCAGAGCAATCTGTC					
TTTA						
	2300	2310	2320	2330	2340	2350
809	750	760	770	780	790	800
Pagapr1.Dna	AGTAGGGATAAATTACTCTAAAACAAAAAGAACCTAGATAGTTCCCTCAAG					
TCAA						
Hs271m21	AGTAGGGATAAATTACTCTAAAACAAAAAGAACCTAGATAGTTCCCTCAAG					
TCAA						
	2360	2370	2380	2390	2400	2410
	810	820	830	840	850	860

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Pagapr1.Dna	GCGTCTTGTGTTAAATAAAGTCTTGT	TTT-AAAAAAAAAAGTAAAAAGAA				
AAGT						
Hs271m21	GCGTCTTGTGTTAAATAAAGTCTTGT	TTT-AAAAAAAAAAGTAAAAAGAA				
AAGT						
	2420	2430	2440	2450	2460	2470
	870	880	890	900	910	920
Pagapr1.Dna	TATGCAACAATTAATGGCCCAGAGGCAATCCTGTTAACATTGATGCATCT	TTT				
AGCT						
Hs271m21	TATGCAACAATTAATGGCCCAGAGGCAATCCTGTTAACATTGATGCATCT	TTT				
AGCT						
	2480	2490	2500	2510	2520	2530
	930	940	950	960	970	980
Pagapr1.Dna	G-TTTTTTTTTTTTTTTTTGACTGAGTTGACTCTTGT	CACCCAGGCTGA				
AGTG						
Hs271m21	GTTTTTTTTTTTTTTTTGACTGAGTTGACTCTTGT	CACCCAGGCTGA				
AGTG						
	2540	2550	2560	2570	2580	2590
	990	1000	1010	1020	1030	1040
Pagapr1.Dna	CAATGGCATGGCATGATCTTGGCTCACTGCAACCTCCGCCTCCC	GGGTTCAAGTGA				
TTCT						
Hs271m21	CAATGGCATGGCATGATCTTGGCTCACTGCAACCTCCGCCTCCC	GGGTTCAAGTGA				
TTCT						
	2600	2610	2620	2630	2640	2650
	1050	1060	1070	1080	1090	1100
Pagapr1.Dna	CCTGCCTCAGCCTCCTGAGTAGCTAGGATTACGGCATGCACCAC	CATGCCTGGCT				
AATT						

Namnlös

Hs271m21 ATAC	CCCCAGGACATTACGTAGTGAAAACCTGTGTTAATTATCTGAGCCTATAACTTA					
	2900	2910	2920	2930	2940	2950
	1350	1360	1370	1380	1390	1400
Pagapr1.Dna TGTG	AGTTTAAAATTTTTAAATACAGTGAACCTTAGGAATGCAATTATAGT					
Hs271m21 TGTG	AGTTTAAAATTTTTAAATACAGTGAACCTTAGGAATGCAATTATAGT					
	2960	2970	2980	2990	3000	3010
	1410	1420	1430	1440	1450	1460
Pagapr1.Dna TCAC	TGTAAAATTAGGGAAAATTAACCTTGCTACCAAGAGTTGTTAACATTTGTTAAA					
Hs271m21 TCAC	TGTAAAATTAGGGAAAATTAACCTTGCTACCAAGAGTTGTTAACATTTGTTAAA					
	3020	3030	3040	3050	3060	3070
	1470	1480	1490	1500	1510	1520
Pagapr1.Dna GCCT	TTCATTGATGGCAACATGCTGGAGGTAGTTGAGTCACCAACTCAGCACCTGGATCA					
Hs271m21 GCCT	TTCATTGATGGCAACATGCTGGAGGTAGTTGAGTCACCAACTCAGCACCTGGATCA					
	3080	3090	3100	3110	3120	3130
	1530	1540	1550	1560	1570	1580
Pagapr1.Dna CTCC	GTGTTGGTAGCAGTTCATCCCCGTGGTTCTGTGAATAGGTGGAAGCATCTGCTTA					
Hs271m21 CTCC	GTGTTGGTAGCAGTTCATCCCCGTGGTTCTGTGAATAGGTGGAAGCATCTGCTTA					
	3140	3150	3160	3170	3180	3190

Namnlös

	1590	1600	1610	1620	1630	1640
Pagapr1.Dna GTTA	ATCAGGACTCTAGGGTAGTCGGGCCTTGGCACTCACACATTAAAATACTGTTAT					
 Hs271m21 GTTA						
	3200	3210	3220	3230	3240	3250
	1650	1660	1670	1680	1690	1700
Pagapr1.Dna TTTT	TTTTATTGCAAGTTACTTTCTTCATTCACAGAAAGGGAAGCA					
 Hs271m21 TTTT						
	3260	3270	3280	3290	3300	3310
	1710	1720	1730	1740	1750	1760
Pagapr1.Dna CCTC	GCTTCTGTTAAAGTTGTATGTAGGTAGGTTATATCATCTAWGACTTTCTCTC					
	:					
Hs271m21 CCTC	GCTTCTGTTAAAGTTGTATGTAGGTAGGTTATATCATCTATGACTTTCTCTC					
	3320	3330	3340	3350	3360	3370
	1770	1780	1790	1800	1810	1820
Pagapr1.Dna AGTG	CTTCCCTTCTTTGAGATGGAGTCTGCTCTGTCACCCAGGCTGGAGTGC					
 Hs271m21 AGTG						
	3380	3390	3400	3410	3420	3430
	1830	1840	1850	1860	1870	1880

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Pagapr1.Dna	GTGCGATCTGGCTCACTGCAACCTCTGCCTCCGGGTTCAAGCGATTCTGGTGTC
	TCAG
Hs271m21	GTGCGATCTGGCTCACTGCAACCTCTGCCTCCGGGTTCAAGCGATTCTGGTGTC
TCAG	
	3440 3450 3460 3470 3480 3490
	1890 1900 1910 1920 1930 1940
Pagapr1.Dna	CTGGGATTACAGGCGCACACCACACACCACGCTAATTTCTATTTTAGTAGAG
ATGG	
Hs271m21	CTGGGATTACAGGCGCACACCACACACCACGCTAATTTCTATTTTAGTAGAG
ATGG	
	3500 3510 3520 3530 3540 3550
	1950 1960 1970 1980 1990 2000
Pagapr1.Dna	GGTTTCGCCATGCTGGCCAGGCCAGGCTGGTCTCAAACCTCCTGAGCTCAAGTGATC
AGTC	
Hs271m21	GGTTTCGCCATGCTGGCCAGGCCAGGCTGGTCTCAAACCTCCTGAGCTCAAGTGATC
AGTC	
	3560 3570 3580 3590 3600 3610
	2010 2020 2030 2040 2050 2060
Pagapr1.Dna	CGCCTCGGCCTCCAAAGTTCTGGGATTTCAGGCGTGAGCCTCATCTATGAATCTC
AATT	
Hs271m21	CGCCTCGGCCTCCAAAGTTCTGGGATTTCAGGCGTGAGCCTCATCTATGAATCTC
AATT	
	3620 3630 3640 3650 3660 3670
	2070 2080 2090 2100 2110 2120
Pagapr1.Dna	TAGGACAGTAAAAGTGTCAATTACAAAAATATTATTGTAAAAAAGGGTTGGAGGTT

Namnlös

GAGA						
Hs271m21	TAGGACAGTAAAAGTGTCAATTAC-AAAATATTATTGTAAAAAAGGGTTGGAGGTT					
GAGA	3680	3690	3700	3710	3720	373
0	2130	2140	2150	2160	2170	2180
Pagapr1.Dna	ATCTCAATTCTAGTCAGTCTCTCAGTGTTGGTTCTCCTACCATTTCCCCCT					
AGGA	3740	3750	3760	3770	3780	379
Hs271m21	ATCTCAATTCTAGTCAGTCTCTCAGTGTTGGTTCTCCTACCATTTCCCCCT					
AGGA	2190	2200	2210	2220	2230	2240
Pagapr1.Dna	CCAGCCAGAAAGCAGCTTTTTGTCCCCCAACAAGGAGCCCCTGTTCT					
CTCC	3800	3810	3820	3830	3840	385
Hs271m21	CCAGCCAGAAAGCAGCTTTTTGTCCCCCAACAAGGAGCCCCTGTTCT					
CTCC	2250	2260	2270	2280	2290	2300
Pagapr1.Dna	CAGCCAAACTCAGGCCTACGAACAAACACAGCAC--TACACACACACACACAC					
ACAC	3860	3870	3880	3890	3900	391
Hs271m21	CAGCCAAACTCAGGCCTACGAACAAACACAGCACACACACACACACACAC					
ACAC	2310	2320	2330	2340	2350	2360
Pagapr1.Dna	AC					
GTCA	11					

Namnlös

Namnlös

0

2610 2620 2630 2640 2650 2660

Pagapr1.Dna GCTGCTGGACCATGGAGCTGCTCTAGTCTCCCAGAAATCTCTTCTACACCCAACCC
TTCT

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Hs271m21 GCTGCTGGACCATGGAGCTGCTCTAGTCTCCCAGAAATCTCTTCTACACCCAACCC
TTCT

4220 4230 4240 4250 4260 427

0

2670 2680 2690 2700 2710 2720

Pagapr1.Dna TGCGCTTAGGTGGTCCTCAGTCCCCCTCCCCCACCTCCTCTGACCCAGGGTTCTT
TCTC

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Hs271m21 TGCGCTTAGGTGGTCCTCAGTCCCCCTCCCCCACCTCCTCTGACCCAGGGTTCTT
TCTC

4280 4290 4300 4310 4320 433

0

2730 2740 2750 2760 2770 2780

Pagapr1.Dna GCCCTCCGGTCGCAGTTCTCCTGGCATCTGCCTCTGCCTCTCCTCTCACCCGG
ATCT

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Hs271m21 GCCCTCCGGTCGCAGTTCTCCTGGCATCTGCCTCTGCCTCTCCTCTCACCCGG
ATCT

4340 4350 4360 4370 4380 439

0

2790 2800 2810 2820 2830 2840

Pagapr1.Dna AGGGCTGCCTCTCTTGTCAGCCGTCTTCTCCACCTCATCCCAGACTCCCTG
TCTC

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Hs271m21 AGGGCTGCCTCTCTTGTCAGCCGTCTTCTCCACCTCATCCCAGACTCCCTG
TCTC

4400 4410 4420 4430 4440 445

0

			Namnlös			
	2850	2860	2870	2880	2890	2900
Pagapr1.Dna TTGT	AGGCCAGCTCCTCTGCCTTGGCTGGGTCCTCTCCCCACCCAGCTTCAG					
Hs271m21 TTGT	 AGGCCAGCTCCTCTGCCTTGGCTGGGTCCTCTCCCCACCCAGCTTCAG					
0	4460	4470	4480	4490	4500	451
	2910	2920	2930	2940	2950	2960
Pagapr1.Dna AGGG	TTGGCCCGCAGGTCCCTCGGCAGTGACCGGGCGCCCCCGACGAGTGC GTGTGCACC					
Hs271m21 AGGG	 TTGGCCCGCAGGTCCCTCGGCAGTGACCGGGCGCCCCCGACGAGTGC GTGTGCACC					
0	4520	4530	4540	4550	4560	457
	2970	2980	2990	3000	3010	3020
Pagapr1.Dna GCTG	CACCTCCCTCTCCCCACCTCTCAGCCCCGCGCCTCTCCACCGCCCGCCCACCGC					
Hs271m21 GCTG	 CACCTCCCTCTCCCCACCTCTCAGCCCCGCGCCTCTCCACCGCCCGCCCACCGC					
0	4580	4590	4600	4610	4620	463
	3030	3040	3050	3060	3070	3080
Pagapr1.Dna GAGG	TGGGCGGTCCAGGGCGGGCTGGGATCCGGGGCGGCTCCGGGGCTGGGTGTGG					
Hs271m21 GAGG	 TGGGCGGTCCAGGGCGGGCTGGGATCCGGGGCGGCTCCGGGGCTGGGTGTGG					
0	4640	4650	4660	4670	4680	469
	3090	3100	3110	3120	3130	3140
Pagapr1.Dna	CGCCCTCTCCCCGGTCTTCCCCCTCTTCCCCCGCCCTGCCTCCCTGCACCCCT					

Namnlös

CCTT						
Hs271m21	CGCCCTCTCCCCGGTCTTCCCCTCTCTCCCCCGCCCTGCCTCCCTGCACCCCT					
CCTT	4700	4710	4720	4730	4740	475
0						
	3150	3160	3170	3180	3190	3200
Pagapr1.Dna	CTTCCTCCGCCCGGGAGCTCTCCCTGGTCCCCGGCGCCGCCTCCTCCCTCCGG					
CTCC						
Hs271m21	CTTCCCTCCGCCCGGGAGCTCTCCCTGGTCCCCGGCGCCGCCTCCTCCCTCCGG					
CTCC	4760	4770	4780	4790	4800	481
0						
	3210	3220	3230	3240	3250	3260
Pagapr1.Dna	CCGCTCCCCGCTCCCGTGGCTGCCGCCGCCGGGAAGAAGAGACAGGGGTGGGG					
TTTG						
Hs271m21	CCGCTCCCCGCTCCCGTGGCTGCCGCCGCCGGGAAGAAGAGACAGGGGTGGGG					
TTTG	4820	4830	4840	4850	4860	487
0						
	3270	3280	3290	3300	3310	3320
Pagapr1.Dna	GGGAAGCGAGAGAGGGAGAGACCCCTGGCCAGGCTGGAGCCTGGATTGAGG					
GGAG						
Hs271m21	GGGAAGCGAGAGAGGGAGAGACCCCTGGCCAGGCTGGAGCCTGGATTGAGG					
GGAG	4880	4890	4900	4910	4920	493
0						
	3330	3340	3350	3360	3370	3380
Pagapr1.Dna	GAGGGACGGAGGAGGAGAAAGGTGGAGGAGAAGGGAGGGGGAGCAGGGAGGAGC					
GGCC						

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Hs271m21 GGCC 0	GAGGGACGGGAGGAGGAGAAAGGTGGAGGAAGGGAGGGGGAGCAGGGAGGAGC					
	4940	4950	4960	4970	4980	499
	3390	3400	3410	3420	3430	3440
Pagapr1.Dna TAAG	GGGCCTGGGGCCTTGAGGCCCGGGAGAGCCGGGAGCCGGCCCGCGCGCCGAGG					
 Hs271m21 TAAG 0						
	GGGCCTGGGGCCTTGAGGCCCGGGAGAGCCGGGAGCCGGCCCGCGCGCCGAGG					
	5000	5010	5020	5030	5040	505
	3450	3460	3470	3480	3490	3500
Pagapr1.Dna GGGG	AGCCAGGGCCCCGGGTTAGCAGGGCTCGGAGAGGGGGCGCGCGCGGTGGTGGGGA					
 Hs271m21 GGGG 0						
	AGCCAGGGCCCCGGGTTAGCAGGGCTCGGAGAGGGGGCGCGCGCGGTGGTGGGGA					
	5060	5070	5080	5090	5100	511
	3510	3520	3530	3540	3550	3560
Pagapr1.Dna GGGG	GCAGTGGCGCAGGGCCCAGCTGGGGAAAGCGGGCTGGGGAGAGGAACCGC					
 Hs271m21 GGGG 0						
	GCAGTGGCGCAGGGCCCAGCTGGGGAAAGCGGGCTGGGGAGAGGAACCGC					
	5120	5130	5140	5150	5160	517
	3570	3580	3590	3600	3610	3620
Pagapr1.Dna CTGC	ATGGAATCGGGGAGCGCTGAGGCAGGCCATGCCGGAGCGTGGTAAGCCAGGCTT					
 Hs271m21 CTGC						
	ATGGAATCGGGGAGCGCTGAGGCAGGCCATGCCGGAGCGTGGTAAGCCAGGCTT					

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0	5180	5190	5200	5210	5220	523
	3630	3640	3650	3660	3670	3680
Pagapr1.Dna GGGG	GAGCCGCGGGGGCCGGGGAGAGGAGGTGGTGAGAGGTGGAGT-CCGGGAGGGTTG					
Hs271m21 GGGG	GAGCCGCGGGGGCCGGGGAGAGGAGGTGGTGAGAGGTGGAGTCCCGGGAGGGTTG					
0	5240	5250	5260	5270	5280	529
	3690	3700	3710	3720	3730	3740
Pagapr1.Dna CCGC	CCGAGGGAGGCAGGAGGGAGGGTGGGGACAGGCTTCCTCCTCTCCCCCACC					
Hs271m21 CCGC	CCGAGGGAGGCAGGAGGGAGGGTGGGGACAGGCTTCCTCCTCTCCCCCACC					
0	5300	5310	5320	5330	5340	535
	3750	3760	3770	3780	3790	3800
Pagapr1.Dna CCGG	GCGGGGCTCCGCCCGCCTCCTCCGCGGGCGCTCTTGGTCCCCAGGCTGAGC					
Hs271m21 CCGG	GCGGGGCTCCGCCCGCCTCCTCCGCGGGCGCTCTTGGTCCCCAGGCTGAGC					
0	5360	5370	5380	5390	5400	541
	3810	3820	3830	3840	3850	3860
Pagapr1.Dna CCGG	TCGGAGCCTGCGAGGCAACCGGCAAGAGGTGAGTAGTCTCCGGTGCAGGCCGCG					
Hs271m21 CCGG	TCGGAGCCTGCGAGGCAACCGGCAAGAGGTGAGTAGTCTCCGGTGCAGGCCGCG					
0	5420	5430	5440	5450	5460	547

	Namnlös					
	3870	3880	3890	3900		
Pagapr1.Dna	CGGGGCTCGGTCCAGTCCTCATGGCCGCCTCTCACTTAG					
Hs271m21 ACTG	CGGGGCTCGGTCCAGTCCTCATGGCCGCCTCTCACTTAGATGTTGCTGCTGCTGCT	5480	5490	5500	5510	5520
0						553
Hs271m21 CTCA	GCGCCACTCTTCCTCCGCCCGGGCGCGGGCGGGCGCAGACCCCCAACGCCAC	5540	5550	5560	5570	5580
0						559

Namnlös

CC During sequence assembly data is compared from overlapping clone
s.
CC Where differences are found these are annotated as variations
CC together with a note of the overlapping clone name. Note that th
e
CC variation annotation may not be found in the sequence submission
CC corresponding to the overlapping clone, as we submit sequences
CC with only a small overlap as described above.
CC This sequence is the entire insert of clone 271M21.
CC This sequence has been finished according to sequence map criter
ia as
CC follows. An attempt is made to resolve all sequencing problems,
such

CC as compressions and repeats, but not necessarily within known
CC annotated human repeat sequence elements (e.g. Alu). Where the
CC sequence is ambiguous, there is an annotation using the "unsure"
CC feature key.
CC This sequence was generated from part of bacterial clone contigs
of
CC human chromosome 6, constructed in collaboration by the Sanger C
entre
CC chromosome 6 mapping group and Armin Volz & Andreas Ziegler. Fur
ther
CC information can be found at <http://www.sanger.ac.uk/HGP/Chr6/>
CC 271M21 is from the library RPCI1 constructed at the Roswell Park

SCORES Init1: 22943 Initn: 22943 Opt: 22943 z-score: 10976.2 E
(): 0

99.9% identity in 4594 bp overlap

30 Pagapr2.Dna ACTC 1111 Hs271m21 ACTC 40 90 Pagapr2.Dna TGCA	10 20 ATGTTGCTGCTGCTGCTACTGGCGCC GTCCAGTCCTCATGGCCGCCTCTCACTTAGATGTTGCTGCTGCTACTGGCGCC 5490 5500 5510 5520 5530 55 40 50 60 70 80 TTCCTCCGCCCGGGCGCGGGCGCAGACCCCCAACGCCACCTCAGAAGG
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Namnlös

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 Hs271m21 TTCCCTCGCCCCCGGGCGCGGGCGGGCGCAGACCCCCAACGCCACCTCAGAAGG
 TGCA 5550 5560 5570 5580 5590 5600
 00 100 110 120 130 140
 150
 Pagapr2.Dna TCCTTCTTCGACGACCTCCGGCCCTCCTCGCTCCACTTCCCTTCCCTGCATCTC
 CTCA
 |||||
 Hs271m21 TCCTTCTTCGACGACCTCCGGCCCTCCTCGCTCCACTTCCCTTCCCTGCATCTC
 CTCA 5610 5620 5630 5640 5650 5660
 60 160 170 180 190 200
 210
 Pagapr2.Dna TTTCTGGTCCTCATCACTATCCCATCAGTCCCACATATCATCCGGTCTGGCAACC
 CCTT
 |||||
 Hs271m21 TTTCTGGTCCTCATCACTATCCCATCAGTCCCACATATCATCCGGTCTGGCAACC
 CCTT 5670 5680 5690 5700 5710 5720
 20 220 230 240 250 260
 270
 Pagapr2.Dna CTGCTCGGCCCGACTTACTACTGCTGACCTCCTCTGTCACCCCACGTACTATC
 CAGC
 |||||
 Hs271m21 CTGCTCGGCCCGACTTACTACTGCTGACCTCCTCTGTCACCCCACGTACTATC
 CAGC 5730 5740 5750 5760 5770 5780
 80 280 290 300 310 320
 330
 Pagapr2.Dna ACCTCTTCTGCCAACATTGCTACACTATAACCACCTCCTGTGCATTTCTCC
 GCCT
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Hs271m21 GCCT 40	ACCTCTTCTGCCACATTGCTACACTATACCACCTCCTGTGCATTTCTCC 5790 5800 5810 5820 5830 58
Pagapr2.Dna ACTT 390	CAATCCCCTTCCCAGCCCCACATTACTACCTCAATTACTCCCTTTCTGGTCCC 5850 5860 5870 5880 5890 59
Hs271m21 ACTT 00	CAATCCCCTTCCCAGCCCCACATTACTACCTCAATTACTCCCTTTCTGGTCCC 400 410 420 430 440
Pagapr2.Dna AATA 450	TGCTGTCCAGATGATCTTATTAGCCTCCCTTATCCTCCTATCCTAATTCAACTGG 5910 5920 5930 5940 5950 59
Hs271m21 AATA 60	TGCTGTCCAGATGATCTTATTAGCCTCCCTTATCCTCCTATCCTAATTCAACTCG 460 470 480 490 500
Pagapr2.Dna TGAT 510	TCCTCATTAGCCTTTTTAAAGAAAAGCTCCACCCACATATCATAACCTTCA 5970 5980 5990 6000 6010 60
Hs271m21 TGAT 20	TCCTCATTAGCCTTTTTAAAGAAAAGCTCCACCCACATATCATAACCTTCA 520 530 540 550 560
Pagapr2.Dna GGTT 570	TTCTTAATTACTTTCTTCTTACCTCCACCCAGCACCCCTCCCTCCCCACTTGTG 6030 6040 6050 6060 6070 60
Hs271m21 GGTT	TTCTTAATTACTTTCTTCTTACCTCCACCCAGCACCCCTCCCTCCCCACTTGTG

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80		580	590	600	610	620		
		CTCTCATCAGCTTAACCCTGGCCTTACTCTGTCTTGCAGGGATCTG						
630	Pagapr2.Dna	TACC						
	Hs271m21	TACC	CTCTCATCAGCTTAACCCTGGCCTTACTCTGTCTTGCAGGGATCTG					
			6090	6100	6110	6120	6130	61
40								
			640	650	660	670	680	
690	Pagapr2.Dna	CACA	TGTCCCCACTCCCACCCCTCTAGTGCCCCATCCCTTGCCTCTGTCCCCAGCCTGCC					
	Hs271m21	CACA	TGTCCCCACTCCCACCCCTCTAGTGCCCCATCCCTTGCCTCTGTCCCCAGCCTGCC					
00			6150	6160	6170	6180	6190	62
750	Pagapr2.Dna	CACC	700	710	720	730	740	
			GACCACGCCCTACTCTCCCCTCCCTCCACTGGGGAGCCTGCCTTTCCCTTTCC					
	Hs271m21	CACC	GACCACGCCCTACTCTCCCCTCCCTCCACTGGGGAGCCTGCCTTTCCCTTTCC					
60			6210	6220	6230	6240	6250	62
810	Pagapr2.Dna	CCCT	760	770	780	790	800	
			ATTCCCTCTGTATGCCTCCCCGACTCACCCCTTAGGTTGCCAGATCATACACCCG					
	Hs271m21	CCCT	ATTCCCTCTGTATGCCTCCCCGACTCACCCCTTAGGTTGCCAGATCATACACCCG					
20			6270	6280	6290	6300	6310	63
			820	830	840	850	860	

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870

Pagapr2.Dna GGGAAAGGGGGCATCAGGTACCGGGGCCTGACTCGGGACCAGGTGAAGGCTATCAAC
TTCC

Hs271m21 GGGAAAGGGGGCATCAGGTACCGGGGCCTGACTCGGGACCAGGTGAAGGCTATCAAC
TTCC

80 6330 6340 6350 6360 6370 63

880 890 900 910 920

930 Pagapr2.Dna TGCCAGTGGACTATGAGATTGAGTATGTGTGCCGGGGGAGCGCGAGGTGGTGGGG
CCCA

Hs271m21 TGCCAGTGGACTATGAGATTGAGTATGTGTGCCGGGGGAGCGCGAGGTGGTGGGG
CCCA

40 6390 6400 6410 6420 6430 64

940 950 960 970 980

990 Pagapr2.Dna AGGTCCGCAAGTGCCTGGCAACGGCTCCTGGACAGATATGGACACACCCAGCCGC
TGTG

Hs271m21 AGGTCCGCAAGTGCCTGGCAACGGCTCCTGGACAGATATGGACACACCCAGCCGC
TGTG

00 6450 6460 6470 6480 6490 65

1000 1010 1020 1030 1040

1050 Pagapr2.Dna GTGAGTAGCCTCGGAAGCCCCTCCCTTTCAAGACTATTCTTCCTGCCGCAA
ACTT

Hs271m21 GTGAGTAGCCTCGGAAGCCCCTCCCTTTCAAGACTATTCTTCCTGCCGCAA
ACTT

60 6510 6520 6530 6540 6550 65

1060 1070 1080 1090 1100

1110 Pagapr2.Dna AGCATTACTGCTTGCAAGTCAGCACTTAAATCCAGTATAACAAAATTCACAAATA

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CATT						
Hs271m21	AGCATTACTGCTTGCAAGTCAGCACTTAAATCCAGTATACCAAAATTACAAATA					
CATT	6570	6580	6590	6600	6610	66
20						
	1120	1130	1140	1150	1160	
1170						
Pagapr2.Dna	TATTGAATGACTACTACATAAGAGCAATTTGCTCTGTGCAGGGTAGTAGA					
GCTA						
Hs271m21	TATTGAATGACTACTACATAAGAGCAATTTGCTCTGTGCAGGGTAGTAGA					
GCTA	6630	6640	6650	6660	6670	66
80						
	1180	1190	1200	1210	1220	
1230						
Pagapr2.Dna	GCAGCCTGCACAGTTCATTCATCCTCCCTTCATTAGGCCACTGATCATTGGCCTA					
TAAC						
Hs271m21	GCAGCCTGCACAGTTCATTCATCCTCCCTTCATTAGGCCACTGATCATTGGCCTA					
TAAC	6690	6700	6710	6720	6730	67
40						
	1240	1250	1260	1270	1280	
1290						
Pagapr2.Dna	ATTGATAATTCATCTTGTCAAGTTATTCTCTTGAGGATCATTAGTGGCAGATGATG					
ACAA						
Hs271m21	ATTGATAATTCATCTTGTCAAGTTATTCTCTTGAGGATCATTAGTGGCAGATGATG					
ACAA	6750	6760	6770	6780	6790	68
00						
	1300	1310	1320	1330	1340	
1350						
Pagapr2.Dna	AAAAATTCTAAAATGATTCATCACATTGAAATACCTCTGTACCCAACCCAGAG					
ACCA						

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Hs271m21 ACCA	AAAAATTCTAAAATGATTCATCACATTTGAATAACCTCTGTCACCAACCCAGAG					
60	6810	6820	6830	6840	6850	68
1410	1360	1370	1380	1390	1400	
Pagapr2.Dna AAGC	TATGCCAAGAACAAAGCCAGTTAATATTAATAGAACCTATAATAAGAA					
 Hs271m21 AAGC						
20	TATGCCAAGAACAAAGCCAGTTAATATTAATAGAACCTATAATAAGAA					
6870	6880	6890	6900	6910	69	
1470	1420	1430	1440	1450	1460	
Pagapr2.Dna CGCC	AAATCTGATTGTGCATCCAAAGTTATACATCTACATATTCAAAGCCAGAGAAC					
 Hs271m21 CGCC						
80	AAATCTGATTGTGCATCCAAAGTTATACATCTACATATTCAAAGCCAGAGAAC					
6930	6940	6950	6960	6970	69	
1530	1480	1490	1500	1510	1520	
Pagapr2.Dna TTCC	CACTGTAGCTGACTTGAAGAGATCCCATTGTGTGCTTATAGCCCCATCTGGG					
 Hs271m21 TTCC						
40	CACTGTAGCTGACTTGAAGAGATCCCATTGTGTGCTTATAGCCCCATCTGGG					
6990	7000	7010	7020	7030	70	
1590	1540	1550	1560	1570	1580	
Pagapr2.Dna GAGG	TAAAATGGTAATTTTTTTCTTTGGGAATGTGTGGATGCTGCACAGGTAAGG					
 Hs271m21 GAGG						
1590	TAAAATGGTAATTTTTTTCTTTGGGAATGTGTGGATGCTGCACAGGTAAGG					

			Namnlös			
	7050	7060	7070	7080	7090	71
00						
1650		1600	1610	1620	1630	1640
Pagapr2.Dna	ATTGGAAGATAGGTAGGCAAATCCTTTCACATGTGATTTCTTAGAGCAGGATG	CTTG				
Hs271m21	ATTGGAAGATAGGTAGGCAAATCCTTTCACATGTGATTTCTTAGAGCAGGATG	CTTG				
60		7110	7120	7130	7140	7150
1710		1660	1670	1680	1690	1700
Pagapr2.Dna	TGGACCCAAACCTGCACCTGAGTCCCCTGCTCTTAAAGGGAAAGAGCCTCTTCA	ACTC				
Hs271m21	TGGACCCAAACCTGCACCTGAGTCCCCTGCTCTTAAAGGGAAAGAGCCTCTTCA	ACTC				
20		7170	7180	7190	7200	7210
1770		1720	1730	1740	1750	1760
Pagapr2.Dna	GCCTCTCTTCTTATTTCTATCTCACAGTCCGAATCTGCTCCAAGTCTTATT	TGAC				
Hs271m21	GCCTCTCTTCTTATTTCTATCTCACAGTCCGAATCTGCTCCAAGTCTTATT	TGAC				
80		7230	7240	7250	7260	7270
1830		1780	1790	1800	1810	1820
Pagapr2.Dna	CCTGGAAAATGGGAAGGTTTCTGACGGGTGGGGACCTCCCAGCTCTGGACGGAG	CCCG				
Hs271m21	CCTGGAAAATGGGAAGGTTTCTGACGGGTGGGGACCTCCCAGCTCTGGACGGAG	CCCG				
40		7290	7300	7310	7320	7330
			71			

	Namnlös				
	1840	1850	1860	1870	1880
1890					
Pagapr2.Dna	GGTGGATTCCGGTGTGACCCCGACTTCATCTGGTGGCAGCTCCGGAGCATCT				
GTAG					
Hs271m21	GGTGGATTCCGGTGTGACCCCGACTTCATCTGGTGGCAGCTCCGGAGCATCT				
GTAG					
00	7350	7360	7370	7380	7390
1950	1900	1910	1920	1930	1940
Pagapr2.Dna	TCAGGGCCAGTGGAGCACCCCCAAGCCCCACTGCCAGGGTGAGGGAACAGCTGCC				
TGCA					
Hs271m21	TCAGGGCCAGTGGAGCACCCCCAAGCCCCACTGCCAGGGTGAGGGAACAGCTGCC				
TGCA					
60	7410	7420	7430	7440	7450
2010	1960	1970	1980	1990	2000
Pagapr2.Dna	TGCAGCTGATGAGGACGCTTGTGTGAGGATGGAGTGGGTGGAAATGGATAATGG				
GAAA					
Hs271m21	TGCAGCTGATGAGGACGCTTGTGTGAGGATGGAGTGGGTGGAAATGGATAATGG				
GAAA					
20	7470	7480	7490	7500	7510
2070	2020	2030	2040	2050	2060
Pagapr2.Dna	GAATGGAGAGCTATAAAATGTGGGGAGGACACTGGAAAGGGGAGATGAAAGTCC				
CTTT					
Hs271m21	GAATGGAGAGCTATAAAATGTGGGGAGGACACTGGAAAGGGGAGATGAAAGTCC				
CTTT					
80	7530	7540	7550	7560	7570
2130	2080	2090	2100	2110	2120
Pagapr2.Dna	TTCCTCCATCACCTGCCTCAAACCTCCCTTGCAGTCCCCGGTATCCTCTGTAGGT				

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TGGG						
Hs271m21	TTCCTCCATCACCTGCCTCAAACCTCCTCTGCAGTCCCCGGTATCCTCTGTAGGT					
TGGG						
40	7590	7600	7610	7620	7630	76
	2140	2150	2160	2170	2180	
2190						
Pagapr2.Dna	GGCTTCCTTCCTTACCTTTAAAAAAATCTCCTGCTCCGATTCTTAGACCTCA					
CGTT						
	GGCTTCCTTCCTTACCTTTAAAAAAATCTCCTGCTCCGATTCTTAGACCTCA					
Hs271m21						
CGTT	7650	7660	7670	7680	7690	77
00	2200	2210	2220	2230	2240	
2250						
Pagapr2.Dna	TTCTCTTCTTATGAATCTCACCTCTCACCTTCTCAGGTTAAATACTCC					
AATT						
	TTCTCTTCTTATGAATCTCACCTCTCACCTTCTCAGGTTAAATACTCC					
Hs271m21						
AATT	7710	7720	7730	7740	7750	77
60	2260	2270	2280	2290	2300	
2310						
Pagapr2.Dna	TTCCCTTCTCTAAACTTAGAAATTCCATGCATCACCTCTAGAATTCTCATCC					
CTCA						
	TTCCCTTCTCTAAACTTAGAAATTCCATGCATCACCTCTAGAATTCTCATCC					
Hs271m21						
CTCA	7770	7780	7790	7800	7810	78
20	2320	2330	2340	2350	2360	
2370						
Pagapr2.Dna	CCATTCCTTATATAATTGATTATTGTAAAGACTCAGAAATAATCAAACATTCTA					
CTAA						

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	Hs271m21	CCATTCCTTATAATTGATTATTGTAAAGACTCAGAAATAATCAAACATTCTA					
	CTAA						
80		7830	7840	7850	7860	7870	78
2430		2380	2390	2400	2410	2420	
Pagapr2.Dna	AATT	GAAAAATTGAGAAGGGGAGCTCTGGGGTGGAAACATATTAGGGTAAAAGACTTAA					
	Hs271m21						
AATT	GAAAAATTGAGAAGGGGAGCTCTGGGGTGGAAACATATTAGGGTAAAAGACTTAA						
40		7890	7900	7910	7920	7930	79
2490		2440	2450	2460	2470	2480	
Pagapr2.Dna	AGGT	GGAGGCAGCATTATCAGAAGATGAAGAACAACTCAGGGATGGGGTGGAAAGAAC					
	Hs271m21						
AGGT	GGAGGCAGCATTATCAGAAGATGAAGAACAACTCAGGGATGGGGTGGAAAGAAC						
00		7950	7960	7970	7980	7990	80
2550		2500	2510	2520	2530	2540	
Pagapr2.Dna	TCTG	CCTTTCTGKACTTCCTAGACAACCTCCATTATTCCCTAACCGAATCAGTGTGTG					
	Hs271m21	:					
TCTG	CCTTTCTGTACTTCCTAGACAACCTCCATTATTCCCTAACCGAATCAGTGTGTG						
60		8010	8020	8030	8040	8050	80
2610		2560	2570	2580	2590	2600	
Pagapr2.Dna	GCAC	TCTACYTTTTTTTTTGCCACGTAATTACAAACTCTCCCTTTCTAG					
	Hs271m21	:					
GCAC	TCTACTTTTTTTTTTGCCACGTAATTACAAACTCTCCCTTTCTAG						

	Namnlös					
	8070	8080	8090	8100	8110	81
20						
	2620	2630	2640	2650	2660	
2670	CCGAACTCTGCCATCTCCTGGGATGCAGTCATCCCATTGTATGCCTCA	TACT				
Hs271m21	CCGAACTCTGCCATCTCCTGGGATGCAGTCATCCCATTGTATGCCTCA	TACT				
80	8130	8140	8150	8160	8170	81
	2680	2690	2700	2710	2720	
2730	TCCTCTACCCCTGGTAGATTCTTCAAGATCCTGGGCTTACTTCCTCACATAAC	TCAG				
Hs271m21	TCCTCTACCCCTGGTAGATTCTTCAAGATCCTGGGCTTACTTCCTCACATAAC	TCAG				
40	8190	8200	8210	8220	8230	82
	2740	2750	2760	2770	2780	
2790	TTATTCTGCTCTAGTTACCATTTATTCTGGAAATTGAGAGTCCCATCCAGGGG	TGGA				
Hs271m21	TTATTCTGCTCTAGTTACCATTTATTCTGGAAATTGAGAGTCCCATCCAGGGG	TGGA				
00	8250	8260	8270	8280	8290	83
	2800	2810	2820	2830	2840	
2850	CTTATGACACTACTGAAACTTAGACTCAAGGTTCTCACCTACAGGGCCCTTTC	CTGT				
Hs271m21	CTTATGACACTACTGAAACTTAGACTCAAGGTTCTCACCTACAGGGCCCTTTC	CTGT				
60	8310	8320	8330	8340	8350	83

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	2860	2870	2880	2890	2900	
2910						
Pagapr2.Dna	GCTCTAATAATATAGAGGGCTCGATGGATATGTGTTCATATGGTAACAGGC	TTTG				
TAAA						
Hs271m21	GCTCTAATAATATAGAGGGCTCGATGGATATGTGTTCATATGGTAACAGGC	TTTG				
TAAA						
20	8370	8380	8390	8400	8410	84
	2920	2930	2940	2950	2960	
2970						
Pagapr2.Dna	AATTGCAGAAATAAGATTAAACAGCAATTGCTAAAGCCAATTGTATGTGAATT					
TTTT						
Hs271m21	AATTGCAGAAATAAGATTAAACAGCAATTGCTAAAGCCAATTGTATGTGAATT					
TTTT						
80	8430	8440	8450	8460	8470	84
	2980	2990	3000	3010	3020	
3030						
Pagapr2.Dna	TTCTTAAAGACTCCCAATTTGTAATATTCAAGGCACCACAGAACCAAGATCTGCC	C				
AAA						
Hs271m21	TTCTTAAAGACTCCCAATTTGTAATATTCAAGGCACCACAGAACCAAGATCTGCC	C				
AAA						
40	8490	8500	8510	8520	8530	85
	3040	3050	3060	3070	3080	
3090						
Pagapr2.Dna	CTTAGCTATTGGCATTCCCGTCTCAAATTCTGTTGTCCTATGAAAAATCGAAGAAG	AA				
AAA						
Hs271m21	CTTAGCTATTGGCATTCCCGTCTCAAATTCTGTTGTCCTATGAAAAATCGAAGAAG	AA				
AAA						
00	8550	8560	8570	8580	8590	86
	3100	3110	3120	3130	3140	
3150						

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Pagapr2.Dna CCCT	TAAGTCCTGACCCCCTTACCCCCAGACCCACCTGTTCTTATCCCCAGGCACCCTC	
Hs271m21 CCCT	TAAGTCCTGACCCCCTTACCCCCAGACCCACCTGTTCTTATCCCCAGGCACCCTC	
	8610 8620 8630 8640 8650 86	
60	3160 3170 3180 3190 3200	
3210		
Pagapr2.Dna GCTG	CAGAAACGCAGGCTTCTGCTCTCCCCGGTCTTCAGCATGGACAGGTGTGGGAGGGG	
Hs271m21 GCTG	CAGAAACGCAGGCTTCTGCTCTCCCCGGTCTTCAGCATGGACAGGTGTGGGAGGGG	
	8670 8680 8690 8700 8710 87	
20	3220 3230 3240 3250 3260	
3270		
Pagapr2.Dna TCCT	GGGATCAGGCCAGGGAAGCTGGCGCCAGTGGTAACTCTTCTCTGATCCCCGTCTT	
Hs271m21 TCCT	GGGATCAGGCCAGGGAAGCTGGCGCCAGTGGTAACTCTTCTCTGATCCCCGTCTT	
	8730 8740 8750 8760 8770 87	
80	3280 3290 3300 3310 3320	
3330		
Pagapr2.Dna ACTG	GCTGCCAGTGAATCGAACGCCACACTCAGGTGAGATGAGAAACCCTTACCGCGCGC	
Hs271m21 ACTG	GCTGCCAGTGAATCGAACGCCACACTCAGGTGAGATGAGAAACCCTTACCGCGCGC	
	8790 8800 8810 8820 8830 88	
40	3340 3350 3360 3370 3380	
3390		
Pagapr2.Dna TACG	CAATGCCCTCCCTTCACTCTGCACCCCTCCACCCCCCTGAAATTCTGCCCTTAGGC	

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	Hs271m21	CAATGCCCTCCCCTTCACTCTGCACCCCTCCACCCCCCTGAAATTCTGCCCTTAGGC					
TACG							
00		8850	8860	8870	8880	8890	89
3450		3400	3410	3420	3430	3440	
Pagapr2.Dna	CCTC	GGGCGTCGTCTTCGCACCTCCCCAACCCACCCAGTTGC GCCACCCCCCTTC					
	Hs271m21	GGGCGTCGTCTTCGCACCTCCCCAACCCACCCAGTTGC GCCACCCCCCTTC					
CCTC							
60		8910	8920	8930	8940	8950	89
3510		3460	3470	3480	3490	3500	
Pagapr2.Dna	TCCC	CCTACCTGTT CCTGCCTCCAGTCCC GGTTTCCACGAGGCTGCCGTCTCCTTG					
	Hs271m21	CCTACCTGTT CCTGCCTCCAGTCCC GGTTTCCACGAGGCTGCCGTCTCCTTG					
TCCC							
20		8970	8980	8990	9000	9010	90
3570		3520	3530	3540	3550	3560	
Pagapr2.Dna	CAGG	TGCTTGGCTACACTTCCCTGGGCTCCACCTCCTCCCAGACTGAGCCTGCCGGTGT					
	Hs271m21	TGCTTGGCTACACTTCCCTGGGCTCCACCTCCTCCCAGACTGAGCCTGCCGGTGT					
CAGG							
80		9030	9040	9050	9060	9070	90
3630		3580	3590	3600	3610	3620	
Pagapr2.Dna	TCCC	CAGAGCCCAGCAGARGGC GGCAGGGTGCTGGGAGACCCTGAGCTCCCACCACGTT					
		:					
	Hs271m21	CAGAGCCCAGCAGAGGGCGGCAGGGTGCTGGGAGACCCTGAGCTCCCACCACGTT					
TCCC							

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	9090	9100	9110	9120	9130	91
40						
	3640	3650	3660	3670	3680	
3690	CTGTGGGTTCTTGCACCTCGCTGGAACCTTCAGCCTGCTGCCTCAGG					
Pagapr2.Dna	ATTT					
Hs271m21	CTGTGGGTTCTTGCACCTCGCTGGAACCTTCAGCCTGCTGCCTCAGG					
ATTT						
00	9150	9160	9170	9180	9190	92
	3700	3710	3720	3730	3740	
3750	CACCTAACGGACTTCTCAGCCTGTCCCACCCATCCAAACCCTGGCCAGGCCTCTC					
Pagapr2.Dna	GCGC					
Hs271m21	CACCTAACGGACTTCTCAGCCTGTCCCACCCATCCAAACCCTGGCCAGGCCTCTC					
GCGC						
60	9210	9220	9230	9240	9250	92
	3760	3770	3780	3790	3800	
3810	TCTTCCCCACATCTTCCGTGTACCCCTTCCCTCGTCTTCAATTCCA					
Pagapr2.Dna	TGTC					
Hs271m21	TCTTCCCCACATCTTCCGTGTACCCCTTCCCTCGTCTTCAATTCCA					
TGTC						
20	9270	9280	9290	9300	9310	93
	3820	3830	3840	3850	3860	
3870	CTGTCTCCCTTCTTAGGCTCTGTCTACCCAGCCCCAGGCTCCACGACCC					
Pagapr2.Dna	CACC					
Hs271m21	CTGTCTCCCTTCTTAGGCTCTGTCTACCCAGCCCCAGGCTCCACGACCC					
CACC						
80	9330	9340	9350	9360	9370	93

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	3880	3890	3900	3910	3920	
3930						
Pagapr2.Dna	ACTCCCTAAACCAGCCTCCCTTCCGTACCCAAC	TCGTTCCCTCCAAAACCGTTTC				
CTCT						
Hs271m21	ACTCCCTAAACCAGCCTCCCTTCCGTACCCAAC	TCGTTCCCTCCAAAACCGTTTC				
CTCT						
40	9390	9400	9410	9420	9430	94
	3940	3950	3960	3970	3980	
3990						
Pagapr2.Dna	CCCCCACATCCTCAGTGCTTCACTGTATCGACT	CATACTCCCACTTCAGACCTCAG				
GCGC						
Hs271m21	CCCCCACATCCTCAGTGCTTCACTGTATCGACT	CATACTCCCACTTCAGACCTCAG				
GCGC						
00	9450	9460	9470	9480	9490	95
	4000	4010	4020	4030	4040	
4050						
Pagapr2.Dna	CAGCCCCGTTCTCTCCGTCCCAC	TCGCATCCTCCCTACCC	TGGTTCTC			
CGTG						
Hs271m21	CAGCCCCGTTCTCTCCGTCCCAC	TCGCATCCTCCCTACCC	TGGTTCTC			
CGTG						
60	9510	9520	9530	9540	9550	95
	4060	4070	4080	4090	4100	
4110						
Pagapr2.Dna	CTTCAGCCTCCCGCGGGCTCCCTCCGCCAC	CCCCGCC	CTGGCACGCCCGTCCC			
CATT						
Hs271m21	CTTCAGCCTCCCGCGGGCTCCCTCCGCCAC	CCCCGCC	CTGGCACGCCCGTCCC			
CATT						
20	9570	9580	9590	9600	9610	96
	4120	4130	4140	4150	4160	
4170						

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Pagapr2.Dna CCTC	TCTCCTCCCCTGGGTCCCCTTAAGTGAGATCCCTCCCTTCTTCGTTCTTT				
Hs271m21 CCTC	TCTCCTCCCCTGGGTCCCCTTAAGTGAGATCCCTCCCTTCTTCGTTCTTT				
	9630 9640 9650 9660 9670 96				
80					
	4180 4190 4200 4210 4220				
4230					
Pagapr2.Dna GCAC	CTCGAGGTTGCATCCCCCTCCCCTCCCCGCCCTCCGACTGTCGCTCCCACCTCG				
Hs271m21 GCAC	CTCGAGGTTGCATCCCCCTCCCCTCCCCGCCCTCCGACTGTCGCTCCCACCTCG				
	9690 9700 9710 9720 9730 97				
40					
	4240 4250 4260 4270 4280				
4290					
Pagapr2.Dna CCCG	TCGCTTCCCTCCCCGCCCTTCCTGCCTCCCCAGCTCCGCCGCCACCC				
Hs271m21 CCCG	TCGCTTCCCTCCCCGCCCTTCCTGCCTCCCCAGCTCCGCCGCCACCC				
	9750 9760 9770 9780 9790 98				
00					
	4300 4310 4320 4330 4340				
4350					
Pagapr2.Dna GCTC	CTGCCGCGCGCCGCCGTGACGTCAGAGCCCCCTCCAGCCCCACATCTCCCTCCT				
Hs271m21 GCTC	CTGCCGCGCGCCGCCGTGACGTCAGAGCCCCCTCCAGCCCCACATCTCCCTCCT				
	9810 9820 9830 9840 9850 98				
60					
	4360 4370 4380 4390 4400				
4410					
Pagapr2.Dna ACGG	CTCCTCCTCCCCCTCCGTCGGTCAGTCAGTCCGCGAGGAGAGTCCGCGGTGGCGCG				

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Hs271m21 CTCCTCCTCCCGTCGGTCAGTCAGTCCGCAGGAGAGTCCCGGGTGGCGCG
ACGG

20 9870 9880 9890 9900 9910 99

4470 4420 4430 4440 4450 4460

Pagapr2.Dna TGGCGAGAGCCGCAGGGGGCCGTAGGAAGCCAACCTCCCTGCTTCTCCGGGGCCCT
CGCC

||||| Hs271m21 TGGCGAGAGCCGCAGGGGGCCGTAGGAAGCCAACCTCCCTGCTTCTCCGGGGCCCT
CGCC

80 9930 9940 9950 9960 9970 99

4530 4480 4490 4500 4510 4520

Pagapr2.Dna CCCTCCTCCCCACAAAATCAGGGATGGAGGCGCTCCCCGGCACCCCTTTAGCAGC
CCTC

||||| Hs271m21 CCCTCCTCCCCACAAAATCAGGGATGGAGGCGCTCCCCGGCACCCCTTTAGCAGC
CCTC

40 9990 10000 10010 10020 10030 100

4590 4540 4550 4560 4570 4580

Pagapr2.Dna CCCGGGAAAGTGTCCCCCTGAGCTCTAACGCTCCCCAACAGCTACCCCTGCC
CCCA

||||| Hs271m21 CCCAGGAAAGTGTCCCCCTGAGCTCTAACGCTCCCCAACAGCTACCCCTGCC
CCCA

00 10050 10060 10070 10080 10090 101

Pagapr2.Dna CGCC

|||||

Hs271m21 CGCCATGGGGCCGGGGCCCTTTGCCCGGGTGGGTGGCCACTGCCGTTCTGG

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TTGT

60

10110 10120 10130 10140 10150 101